GP 2405

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application

Applicant: JOSEPH HUMMEL

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Title: KNITTABLE YARN AND SAFETY APPAREL

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Commissioner of Patents
and Trademarks
Washington, D.C. 20231

DISCLOSURE STATEMENT

Dear Sirs:

In compliance with 37 C.F.R. §1.56, applicant hereby cites and furnishes copies of the patents listed on the attached PTO Form 1449. This citation is made with the expectation that the patents will be fully considered by the Patent and Trademark Office during examination of the subject application. Translations of the foreign references are provided.

U.S. PATENTS

Patent No.	Issue Date	Inventor
831,108	09/18/06	Ryder
2,165,296	07/11/39	Oass
2,864,091	12/16/58	Schneider
3,087,699	04/30/63	Foster

I hereby certify that this paper is being deposited with the U.S. Postal Service as 1st Class Mail addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231 on 4/23/93.

By: Anita J. Stalo

Patent No.	Issue Date	Inventor
3,145,525	08/25/64	Laureti
3,288,175	11/29/66	Valko
3,490,224	01/20/70	Bourgeas
3,572,397	03/23/71	Austin
3,607,822	09/21/71	Nishino
3,700,515	10/24/72	Terry
3,821,067	06/28/74	Taylor et al.
3,871,946	03/18/75	Romanski et al.
3,883,898	05/20/75	Byrnes, Sr.
3,895,149	07/15/75	Sheffler et al.
3,923,926	12/02/75	Harada et al.
3,968,725	07/13/76	Holzhauer
4,004,295	01/25/77	Byrnes, Sr.
4,267,044	05/12/81	Kroplinski et al.
4,384,449	05/24/83	Byrnes, Sr. et al.
4,470,251	09/11/84	Bettcher
4,526,828	07/02/85	Fogt et al.
4,640,950	02/03/87	Nishino et al.
4,777,789	10/18/88	Kolmes et al.
4,838,017	06/13/89	Kolmes et al.
4,912,781	04/03/90	Robines et al.
4,936,085	06/26/90	Kolmes et al.

PUBLICATIONS

The WHIZARD cut-resistant LINER II Glove, 1989, Form 789.

The WHIZARD KNIFE HANDLER Glove, 1990, Form 990-4.

The WHIZARD GRIPGUARD Glove, 1985, Bulletin GG 585.

OTHER

KUT-GUARD 40 by PR Industries is a glove that, as best can be determined, the yarn is comprised of a core of 1300 denier polyester and a first and second wrap of 0.004 inch stainless steel at 10 wraps per inch wrapped in opposite directions and a third and fourth wrap of 1300 denier polyester at 10 wraps per inch wrapped in opposite directions. The outer diameter of the yarn is 0.030 inch.

KUT-GUARD by PR Industries is a glove that, as best can be determined, the yarn is comprised of a 1300 denier polyester core strand wrapped directly by a 0.004 inch stainless steel wire at 8 wraps per inch, a wrap of 1000 denier polyester at 10 wraps per inch, and a wrap of 1300 denier polyester at 14 wraps per inch. The yarn has an outer diameter of 0.028 inch.

TUFF-KNIT STEEL II by Perfect Fit Industries is a glove that, as best can be determined, the yarn is comprised of 840 denier white polyester, a first and second wrap of 0.003 inch stainless steel wrapped at 8 wraps per inch in opposite directions, and a third wrap of 840 denier yellowish polyester at 10 wraps per inch and a fourth wrap of 1000 denier yellowish polyester wrapped at 8 wraps per inch. The yarn has an outer diameter of 0.022 inch.

TUFF-KNIT STEEL II(A) by Perfect Fit Industries is a glove that, as best can be determined, the yarn is comprised of a core of 1300 denier polyester and a 0.003 inch stainless steel wire wrapped to the left with a 0.003 inch stainless steel wire at 8 wraps per inch and wrapped to the right with a 0.003 inch stainless steel wire at 8 wraps per inch. The wrapped stainless steel wire is parallel to the polyester strand in the core. The core strands are wrapped first with 1000 denier polyester at 10 wraps per inch and a second wrap of 1300 denier polyester at 8 wraps per inch wrapped in an opposite direction of the second wrap. The outer diameter of the yarn is 0.028 inch.

POLAR BEAR by Golden Needles Knitting, Inc. is a glove that, as best can be determined, is knit from yarn comprised as follows: a core of one annealed stainless steel strand approximately 0.004 inch in diameter and one

parallel strand of stretched high strength polyethylene fiber (believed to be Allied "Spectra 900") of between 1000 and 1200 denier, and two outer wrappings wound in opposite directions, the first of high strength polyethylene fiber (believed to be Allied "Spectra 1000") of about 650 denier and the second of nylon (believed to be Allied "Caprolon") of about 630 denier. Allied Spectra is asserted by the manufacturer to have tensile strength greater than Kevlar (high strength aramid).

FOREIGN PATENTS & PUBLICATIONS

Patent No.	Country	Publication Date	Brief Description
19,406	German	09/12/82	Teaches asbestos covered threads having a metal wire inlay (core?) or a spinnable material inlay.
187,327	United Kingdom	10/18/22	Discloses a fabric composed of metal and fiber warp yarn and metal entwined with fiber filling yarn, the yarns being woven so that there is metal-to-metal contact at the crossing points of the warp and filling yarns.
1,401,378	United Kingdom	07/30/75	Discloses a temperature resistant fabric having a layer of aromatic polyamide or polyester fibers intertwined with asbestos yarn and a coating of elastomeric material.
1,539,816	France	08/12/68	Discloses a protective garment woven from a yarn in which metal wires are twisted, plated or wrapped on a textile thread.
43-5157	Japan	03/05/68	Teaches a yarn for decorative purposes. The yarn is composed of a metal core, a fiber thread twined around the core in one direction and a filament covered

			fine wire twined around the core and fiber in the other direction.
47-28125	Japan	04/15/71	Discloses a protective glove knit from stainless steel wire or wire twine.
1,610,495	German	01/28/71	Discloses a yarn having a wire core thread spun around twice with a natural or synthetic fiber. The fibers may be spun around either in the same or opposite directions.

Respectfully submitted,

April 22, 1993
Date

James G. Watterson
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